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10/699,700	11/04/2003	Masahiro Ozawa	011350-324	5850
21839	7590	12/05/2007	EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)
	10/699,700	OZAWA, MASAHIRO
	Examiner Bernard Krasnic	Art Unit 2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 September 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-16 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5-02-2007 and 8-01-2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. The amendment filed 9/10/2007 have been entered and made of record.

2. The Applicant has canceled claims 17-39.

3. In response to the amendments filed on 9/10/2007:

The "Objections to the abstract" have been entered, but the Applicant has not amended a few of the addressed abstract objections and therefore the Examiner has once again addressed these issues.

The "Objections to the claims" have been entered, but the Applicant has not amended a few of the addressed claim objections and therefore the Examiner has once again addressed these issues.

The "Claim rejections under 35 U.S.C. 112, second paragraph" have been entered and therefore the Examiner withdraws the rejections under 35 U.S.C. 112, second paragraph.

The "Claim rejections under 35 U.S.C. 101" have been entered and therefore the Examiner withdraws the rejections under 35 U.S.C. 101

4. The Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection because the Applicant has amended independent claim(s) 1-16.

5. Applicant's arguments filed 9/10/2007 have been fully considered but they are not persuasive.

The Applicant alleges, "According to one aspect of the present invention ..." in page 17, "The claims have been carefully reviewed ..." in page 17, and "Although Gentile may teach using a different processing ..." in pages 17-18, and states respectively that the prior art reference Gentile doesn't teach the amended limitation that there are a plurality of compression methods for each type of data or object and a compression method is selected from among the plurality for each type of region or object but rather teaches using a different processing method for each type of region. However the Examiner disagrees because the prior art reference Gentile teaches selecting one of the compression mechanisms for each of the regions, according to its regions type, from a plurality of compression algorithms corresponding to each different region representation type. Gentile teaches some compression schemes are: one-color encoding; two-color encoding; run-length encoding; LZW encoding; JPEG encoding; lossy encoding, lossless encoding; etc. Gentile also teaches the particular compression algorithm used for each region type is determined based on the compression factors associated with the particular region type [for example: dependent on what ratio / size, computational complexity / speed, or visual quality / picture quality is wanted to be achieved for the particular region, a particular compression scheme from the plurality of compression schemes is selected] (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32). To further clarify that Gentile teaches this amended limitation, Gentile teaches updating the compression scheme for

the particular region if the target compression factors are not achieved (see Gentile, col. 11, lines 53-65) therefore showing that plural compression schemes are available for each particular type of region. Therefore claims 1-16 are still not in condition for allowance.

Specification

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

7. The abstract of the disclosure is objected to because it is not narrative. It consists and has been drafted as one long run-on sentence, much like amended claim 1, which is improper. The intent of the abstract is to give a concise but brief statement of the disclosure or the invention as a whole consisting of a series of complete sentences forming a single paragraph.

Correction is required. See MPEP § 608.01(b).

Claim Objections

8. Claims 1-16 are objected to because of the following informalities:

Claims 13 and 15, lines 14-15 respectively: "which exhibits the highest" should be -- which exhibits a highest --.

Claim 14, lines 14-15: "which exhibits the least" should be -- which exhibits a least --.

Claim 6, line 2: "a object extraction unit" should be -- an object extraction unit --.

Claims 1-5 and 7-11, lines 4-5, claims 12-16, lines 6-7, respectively: "for image data in each region" should be -- for the image data in each region --.

Claims 2-4 and 8-10, line 12, claims 5 and 11, lines 13, 19-20 and 26, claims 13-15, line 14, claim 16, lines 15, 21 and 27-18 respectively: "for image data in each region" should be -- for the image data in each region --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Gentile (US 5,949,968, as applied in previous Office Action).

Re Claim 1: Gentile discloses an image processing device / processing apparatus for output to a visual-output device (see col. 2, lines 4-6), comprising a region extraction unit / within a processor for separating and extracting a character region / text type, a

graphic region / graphic type and a photograph region / photograph type from image data / two-dimensional page representation (see Fig. 2, col. 2, lines 26-30); a region compression unit / within a processor for performing a compression process / different algorithms for compressing for image data in each region / different representation types extracted by said region extraction unit (see col. 2, lines 34-38); a region synthesis unit / within a processor for synthesizing / stored sequentially or displayed together the image data of the regions / different types compressed by said region compression unit (see col. 3, lines 32-38, the compressed data is stored sequentially by the region which is essentially synthesizing or combining the compression regions, or the compressed data after being stored sequentially is decompressed and displayed on a display to the visual-output display as shown in ref. No. 18 or 80 of Fig. 1 and Fig. 3 which is essentially synthesizing or combining the compression regions); and a compression method selection unit / within a processor for selecting, for each region / different types, a compression method / selection of compression algorithm for the compression process to be performed in accordance with a type of the region / different types among a plurality of compression methods / different compression algorithms, each of which is designated for the type of region / different types (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32, Gentile teaches selecting one of the compression mechanisms for each of the regions, according to its regions type, from a plurality of compression algorithms corresponding to each different region representation type. Gentile teaches some compression schemes are: one-color encoding; two-color encoding; run-length encoding; LZW

encoding; JPEG encoding; lossy encoding, lossless encoding; etc. Gentile also teaches the particular compression algorithm used for each region type is determined based on the compression factors associated with the particular region type [for example: dependent on what ratio / size, computational complexity / speed, or visual quality / picture quality is wanted to be achieved for the particular region, a particular compression scheme from the plurality of compression schemes is selected]. see Gentile, col. 11, lines 53-65, Gentile teaches updating the compression scheme for the particular region if the target compression factors are not achieved therefore showing that plural compression schemes are available for each particular type of region.); said region compression unit / within a processor performing the compression process / different algorithms for compressing for the image data of each region / different representation types using the compression method selected / selection of compression algorithms for the region / different types by said compression method selection unit (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32 and 53-65).

Re Claim 5: Gentile discloses an image processing device / processing apparatus for output to a visual-output device (see col. 2, lines 4-6), comprising a region extraction unit / within a processor for separating and extracting a character region / text type, a graphic region / graphic type and a photograph region / photograph type from image data / two-dimensional page representation (see Fig. 2, col. 2, lines 26-30); a region compression unit / within a processor for performing a compression process / different

algorithms for compressing for image data in each region / different representation types extracted by said region extraction unit (see col. 2, lines 34-38); a region synthesis unit / within a processor for synthesizing / stored sequentially or displayed together the image data of the regions / different types compressed by said region compression unit (see col. 3, lines 32-38, the compressed data is stored sequentially by the region which is essentially synthesizing or combining the compression regions, or the compressed data after being stored sequentially is decompressed and displayed on a display to the visual-output display as shown in ref. No. 18 or 80 of Fig. 1 or Fig. 3 which is essentially synthesizing or combining the compression regions); and a compression process mode setting unit / selection of compression algorithms using compression factors for setting a speed preference mode / computational complexity, a picture quality preference mode / visual quality or a size preference mode / compression ratio as a compression processing mode (see col. 2, lines 33-41, the selection of a plurality of different compression algorithms corresponding to different representation types with combinations are based on balancing the compression factors of compression ratio or size, computational complexity or speed and visual quality or picture quality); said region compression unit / within a processor using, when the speed preference mode is set / compression algorithms based on computation complexity factor by said compression process mode setting unit, one of a plurality of compression methods designated for image data in each region / different types which exhibits a highest processing speed / low compression complexity to perform the compression process for the individual region (see col. 2, lines 33-41, col. 3, lines 5-10, when the

selection of compression algorithms for the different representation types and their combinations is based on computational complexity, a low computational complexity results in high processing speed while a high computational complexity results in low processing speed) wherein, for each type of region / different types, the designated compression method is selected from among a plurality of compression methods / selection of compression algorithm from different compression algorithms, each of which is designated for the type of region / different types (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32, Gentile teaches selecting one of the compression mechanisms for each of the regions, according to its regions type, from a plurality of compression algorithms corresponding to each different region representation type. Gentile teaches some compression schemes are: one-color encoding; two-color encoding; run-length encoding; LZW encoding; JPEG encoding; lossy encoding, lossless encoding; etc. Gentile also teaches the particular compression algorithm used for each region type is determined based on the compression factors associated with the particular region type [for example: dependent on what ratio / size, computational complexity / speed, or visual quality / picture quality is wanted to be achieved for the particular region, a particular compression scheme from the plurality of compression schemes is selected]. see Gentile, col. 11, lines 53-65, Gentile teaches updating the compression scheme for the particular region if the target compression factors are not achieved therefore showing that plural compression schemes are available for each particular type of region.), said region compression unit / within a processor using, when the picture quality preference

mode is set / compression algorithms based on visual quality by said compression process mode setting unit, one of a plurality of compression methods designated for image data in each region / different types which exhibits a least picture quality deterioration / best visual quality to perform the compression process for the individual region (see col. 2, lines 33-41, col. 3, lines 5-10, when the selection of compression algorithms for the different representation types and their combinations is based on visual quality, a best visual quality results in the least picture quality deterioration, a worst visual quality results in the highest picture quality deterioration), wherein, for each type of region / different types, the designated compression method is selected from among a plurality of compression methods / selection of compression algorithm from different compression algorithms, each of which is designated for the type of region / different types (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32 and lines 53-65, see the similar discussion above), and said region compression unit / within a processor using, when the size preference mode is set / compression algorithms based on the compression ratio factor by said compression process mode setting unit, one of a plurality of compression methods designated for image data in each region / different types which exhibits a highest compression ratio / highest compression ratio to perform the compression process for the individual region (see col. 2, lines 33-41, col. 3, lines 5-10, when the selection of compression algorithms for the different representation types and their combinations is based on compression ratio, the highest compression ratio results in a small data size, the least compression ratio results in a large data size), wherein, for each type of region

/ different types, the designated compression method is selected from among a plurality of compression methods / selection of compression algorithm from different compression algorithms, each of which is designated for the type of region / different types (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32 and lines 53-65, see the similar discussion above).

Re Claim 6: Gentile discloses an image processing device / processing apparatus for output to a visual-output device (see col. 2, lines 4-6), comprising an object extraction unit / within a processor for interpreting a document file / page representation described in a page description language / text, graphic and photograph or any combination, and extracting an object / text, graphic and photograph or any combination which is a component of the document file / page representation (see Fig. 2, col. 2, lines 26-30), an object compression unit / within a processor for performing a compression process / different algorithms for compressing for each of the object data / different representation types extracted by said object extraction unit (see col. 2, lines 34-38); an object synthesis unit / within a processor for synthesizing / stored sequentially or displayed together the object data / different types compressed by said object compression unit (see col. 3, lines 32-38, the compressed data is stored sequentially by the type which is essentially synthesizing or combining the compressed object data, or the compressed data after being stored sequentially is decompressed and displayed on a display to the visual-output display as shown in ref. No. 18 or 80 of Fig. 1 or Fig. 3 which is essentially synthesizing or combining the compressed object data); and a compression method

selection unit / within a processor for selecting a compression method / selection of compression algorithms for the compression process to be performed for each of the objects / different types extracted by said object extraction unit from among a plurality of compression methods designated individually for types / corresponding with different representation types of the object data (see col. 2, lines 33-41, the selection of a plurality of different compression algorithms corresponding to different representation types with combinations), wherein, for each type of object / different types, the designated compression method is selected from among a plurality of compression methods / selection of compression algorithm from different compression algorithms, each of which is designated for the type of object / different types (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32, Gentile teaches selecting one of the compression mechanisms for each of the objects, according to its object type, from a plurality of compression algorithms corresponding to each different object representation type. Gentile teaches some compression schemes are: one-color encoding; two-color encoding; run-length encoding; LZW encoding; JPEG encoding; lossy encoding, lossless encoding; etc. Gentile also teaches the particular compression algorithm used for each object type is determined based on the compression factors associated with the particular object type [for example: dependent on what ratio / size, computational complexity / speed, or visual quality / picture quality is wanted to be achieved for the particular object, a particular compression scheme from the plurality of compression schemes is selected]. see Gentile, col. 11, lines 53-65, Gentile teaches updating the compression scheme for the particular object if the target

compression factors are not achieved therefore showing that plural compression schemes are available for each particular type of object.); said object compression unit / within a processor performing the compression process / different algorithms for compressing for each of the objects / different representation types using the compression method selected / selection of compression algorithms for the objects / different types by said compression method selection unit (see Gentile, col. 2, lines 34-38 and 63-63, abstract, lines 7-14, col. 10, lines 44-58, col. 11, lines 19-32 and 53-65).

As to claims 2-4, the discussions are addressed with respect to claim 5.

As to claims 7-11, the claims are the corresponding method claims to claims 1-5 respectively. The discussions are addressed with regard to claims 1-5.

As to claims 12-16, the claims are the corresponding computer-readable medium claims to claims 1-5 respectively. The discussions are addressed with regard to claims 1-5.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Krasnic whose telephone number is (571) 270-1357. The examiner can normally be reached on Mon-Thur 8:00am-4:00pm and every other Friday 8:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Application/Control Number:
10/699,700
Art Unit: 2624

Page 15

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bernard Krasnic
November 20, 2007

JINGGE WU
SUPERVISORY PATENT EXAMINER

